

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Inventor: Masahiko NANRI

Art Unit 2446

Appln. No.: 10/533,076

Exr. Y. Nilanont

Filed: April 28, 2005

Conf. No. 2401

For: COMMUNICATION SYSTEM AND METHOD THAT GENERATE A NEW
PACKET TRANSMISSION WINDOW BASED ON PACKET ARRIVAL
TIMES

RESPONSE UNDER 37 CFR § 1.116

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Final Rejection dated November 24, 2008, the Applicant respectfully requests reconsideration and allowance of this application in light of the following remarks.

Claims 5-8 stand rejected, under 35 USC § 103(a), as being unpatentable over Hadi Salim et al. (US 6,625,118) in view of Tam (US 6,622,172) and Fu et al. (IEEE article). The Applicant respectfully traverses these rejections based on the points set forth below.

Claim 5 defines a communication system that generates transmission window-size information based on the difference between the time at which a head packet of a plurality of packets is received and the time at which all packets in a transmission window are received. The claimed subject matter supports controlling the quantity of packets transmitted so as to avoid transmission congestion (see specification page 2, lines 13-16). (References herein to the

specification and drawings are for illustrative purposes only and are not intended to limit the scope of the invention to the referenced embodiments.)

The Final Rejection acknowledges that Hadi Salem does not disclose the Applicant's claimed subject matter of generating transmission window-size information based on the difference between the time at which a head packet is received and the time at which all the packets in a transmission window are received (see Final Rejection, sentence bridging pages 3 and 4). To overcome this deficiency, the Final Rejection proposes that Fu discloses this subject matter (see page 4, lines 5-8).

However, Fu discloses subtracting $Actual_f$ from Expected (i.e., $Expected - Actual_f$) to calculate $DIFF_f$. When the product of $DIFF_f$ and Base RTT (i.e., $DIFF_f * BaseRTT$) is less than α , a TCP window size, $cwnd$, is incremented by one (see Fu page 3235, last paragraph). When the product of $DIFF_f$ and Base RTT is less than β , $cwnd$ is either decremented by one or left unchanged (see page 3235, last paragraph). Fu defines Expected as the best possible throughput, $Actual_f$ as the actual flow rate, and BaseRTT as the minimum of all measured round trip times (RTT) (see page 3230, third paragraph, and page 3235, last paragraph).

Fu's disclosure of subtracting the actual flow rate of packets from the best possible throughput is not similar to the claimed subject matter of generating transmission window-size information based on the difference between the time at which a head packet of packets is received and the time at which all the packets in a transmission window are received. And Tam is not cited in the Final Rejection for supplementing the teachings of Hadi Salim and Fu in this regard.

Accordingly, the Applicant submits that the teachings of Hadi Salim, Tam and Fu, considered individually or in combination, do not render obvious the subject matter defined by claim 5. Independent claim 6 similarly recites the above-mentioned subject matter distinguishing apparatus claim 5 from the applied references, but with respect to a method. Therefore, allowance of claims 5 and 6 and all claims dependent therefrom is warranted.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

/James Edward Ledbetter/

Date: February 13, 2009
JEL/DWW/att

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